

### **REMARKS**

Entry of the foregoing and reconsideration of the subject application are respectfully requested in light of the comments which follow.

Claims 1-8 were pending in this application. In this response, claims 1-8 have been amended and claims 9-14 added. Thus, claims 1-14 remain pending.

Support for the foregoing amendments can be found, for example, in at least the following locations in the original disclosure: the original claims and the specification, page 5, lines 21-24.

### ***DISCLOSURE OBJECTIONS***

The disclosure was objected to for the reasons appearing at pages 2 and 3 of the Official Action. Applicants have prepared and include a substitute specification addressing the formatting of the numbers as noted by the Examiner. Reconsideration is respectfully requested.

### ***OBJECTIONS TO THE DRAWINGS***

The drawings are objected to for the reasons noted beginning on page 2 of the Official Action. In response, a replacement drawing is provided wherein the Y-axis of Fig. 1/6 has been relabeled as "Reduction of Area to Fracture," in conformity with page 3 of the specification. Reconsideration and withdrawal of the objection are respectfully requested.

### ***REJECTIONS UNDER 35 U.S.C. § 112***

Claims 2 and 8 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant

regards as the invention for the reasons presented at page 3 of the Official Action. Both of these claims have been suitably amended to address the noted rejections. Reconsideration and withdrawal of the rejections are respectfully requested.

***REJECTIONS UNDER 35 U.S.C. § 101***

Claim 8 is rejected under 35 U.S.C. §101 because for the reasons presented on page 4 of the Official Action. Claim 8 has been amended to address the noted rejection. Reconsideration and withdrawal of the rejection are respectfully requested.

***REJECTIONS UNDER 35 U.S.C. § 103***

The present claims are directed to a method to form an austenitic alloy by coating a first, austenitic alloy substrate material with a second alloy. The first, substrate alloy has a lower Al content than the second alloy. Further, the first, substrate alloy is at a temperature of between 100° C and 600° C, preferably between 150° C and 450° C, so that the substrate is at temperature less than the melting point of the Al (see, page 5, lines 21-24). After the coating, the material is processed and the resulting alloy has, among other constituents, an Al content above approximately 4.5 wt.% (see, page 6, line 32).

The above general features and properties are present in the current claims. For example, independent claim 1 recites that an:

austenitic substrate alloy of low Al content is coated with at least one layer of an alloy of higher Al content at a temperature between 100°C and 600°C resulting in an Al content of 4.5-12 % by weight.

Independent claim 2 recites that the method comprises:

coating an austenitic alloy with at least one layer of a composition of higher Al content, wherein the austenitic substrate alloy has the following composition (in % by weight):

20-70 % of Ni,

15-27 % of Cr,

0-5 % of Al,

0-4 % of Mo and/or W,

0-2 % of Si,

0-3 % of Mn,

0-2 % of Nb,

0-0.5 % of Ti,

0-0.1 % of one or more rare earth metals (REM)

balance Fe and normally occurring impurities,

wherein the substrate is at a temperature between 100° C and 600° C during the coating.

The dependent claims contain additional features of the claimed methods and resulting alloy.

Claims 1-8 are rejected under 35 U.S.C. §103(a) as being unpatentable over European Patent Application No. 1235682 to Ralf (hereafter "*Ralf*") cited by Applicant in IDS dated December 4, 2006 alone or in view of U.S. Patent No. 4,752,599 to Nakamura et al. (hereafter "*Nakamura et al.*") on the grounds set forth beginning on page 4 of the Official Action. This rejection is respectfully traversed.

The rejection cites to the claims of *Ralf*, as the remainder of the document is not in English. In citing to the claims, the rejection notes the temperature in claim 3. This claim states that the "composite material is homogenized at a temperature of >600° C." This is relied upon to meet the claimed feature of coating "at a temperature between 100°C and 600°C" (claim 1).

The disclosed processing temperature in *Ralf* is at a different point in the process than is the claimed temperature in the claims 1 and 2 in the claimed method. Namely, in the present claims, the temperature is of the substrate during coating by the higher Al-content alloy, while in

*Ralf*, the temperature is for homogenizing after the multilayer composite material has already been formed. These are distinctly different points in the process.

Based on the above, it is respectfully asserted that *Ralf*, on its own, does not disclose at least the above-noted claimed feature of the method. As such, *Ralf* is missing at least this element of the claims and, because of this lack of disclosure, cannot render obvious the claimed method. Accordingly, withdrawal of this rejection is respectfully requested.

As to the alternative basis for rejection, i.e., *Ralf* in view of *Nakamura et al.*, *Nakamura et al.* merely discloses a heat treatment temperature of 600° to 1300° C (see, e.g., col. 4, lines 6-7). Also, it is noted from Claim 1 (cited by the Examiner in a separate rejection) does not coat a substrate at a temperature as claimed, but rather coats a substrate, rolls, shapes and at a later process, heat treats at 600° to 1300° C (see, e.g., claim 1). Accordingly, the combination of *Ralf* in view of *Nakamura et al.* does not overcome the above-noted deficiency in *Ralf*. Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 1-8 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,535,034 to Zaizen et al. (hereafter "*Zaizen et al.*") cited by Applicant's IDS filed December 4, 2006 alone or in view of "*Nakamura et al.*" on the grounds set forth on pages 5 and 6 of the Official Action. This rejection is respectfully traversed.

First, the rejection cites to the claims of *Zaizen et al.* In citing to the claims, the rejection states that "claims 1-12 in columns 6-8 discloses an austenitic alloy processed in substantially the same manner as Applicant..." Applicant respectfully disagrees. None of claims 1-12 discloses the claimed method. Namely, in the present claims, the temperature is of the substrate during coating by the higher Al-content alloy, while in *Zaizen et al.*, the only temperature in the claims

is recited in Claim 7 and concerns heat treatment of the already coated steel, i.e. after the substrate has already been coated. The temperature in Claim 7 in *Zaizen et al.* is at a distinctly different points in the process than in the present claims. A review of *Zaizen et al.* did not identify a disclosure as to coating "at a temperature between 100°C and 600°C" as claimed.

Based on the above, it is respectfully asserted that *Zaizen et al.*, on its own, does not disclose at least the above-noted claimed feature of the method. As such, *Zaizen et al.* is missing at least this element of the claims and, because of this lack of disclosure, cannot render obvious the claimed method. Accordingly, withdrawal of this rejection is respectfully requested.

As to the alternative basis for rejection, i.e., *Zaizen et al.* in view of *Nakamura et al.*, *Nakamura et al.* merely discloses a heat treatment temperature of 600° to 1300° C (see, e.g., col. 4, lines 6-7). Also, it is noted from Claim 1 (cited by the Examiner in a separate rejection) does not coat a substrate at a temperature as claimed, but rather coats a substrate, rolls, shapes and at a later process, heat treats at 600° to 1300° C (see, e.g., claim 1). Accordingly, the combination of *Zaizen et al.* in view of *Nakamura et al.* does not overcome the above-noted deficiency in *Zaizen et al.* Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 1-8 are rejected under 35 U.S.C. §103(a) as being unpatentable over "*Nakamura*" on the grounds set forth on pages 6 and 7 of the Official Action. This rejection is respectfully traversed.

As already noted, *Nakamura et al.* merely discloses a heat treatment temperature of 600° to 1300° C (see, e.g., col. 4, lines 6-7) and in the claims (specifically cited by the Examiner in the rejection) does not coat a substrate at a temperature as claimed, but rather coats a substrate, rolls, shapes and at a later process, heat treats at 600° to 1300° C (see, e.g., claim 1). Accordingly,

*Nakamura et al.* does not disclose all of the features of the present claims and does not establish obviousness. Reconsideration and withdrawal of the rejection are respectfully requested.

**CONCLUSION**

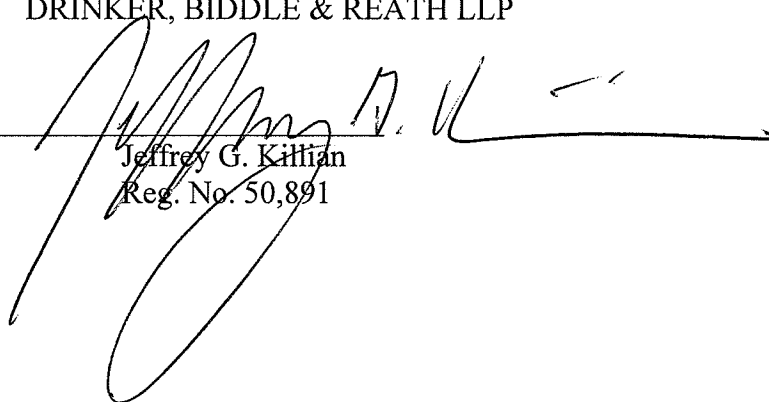
From the foregoing, further and favorable action in the form of a Notice of Allowance is earnestly solicited. Should the Examiner feel that any issues remain, it is requested that the undersigned be contacted so that any such issues may be adequately addressed and prosecution of the instant application expedited.

Respectfully submitted,

DRINKER, BIDDLE & REATH LLP

Date: December 1, 2009

By: \_\_\_\_\_

  
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**DRAWING ATTACHMENTS**